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Farming In Alberta, Canada. (3Rd Rev.Ed.)



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# FARMING IN ALBERTA CANADA

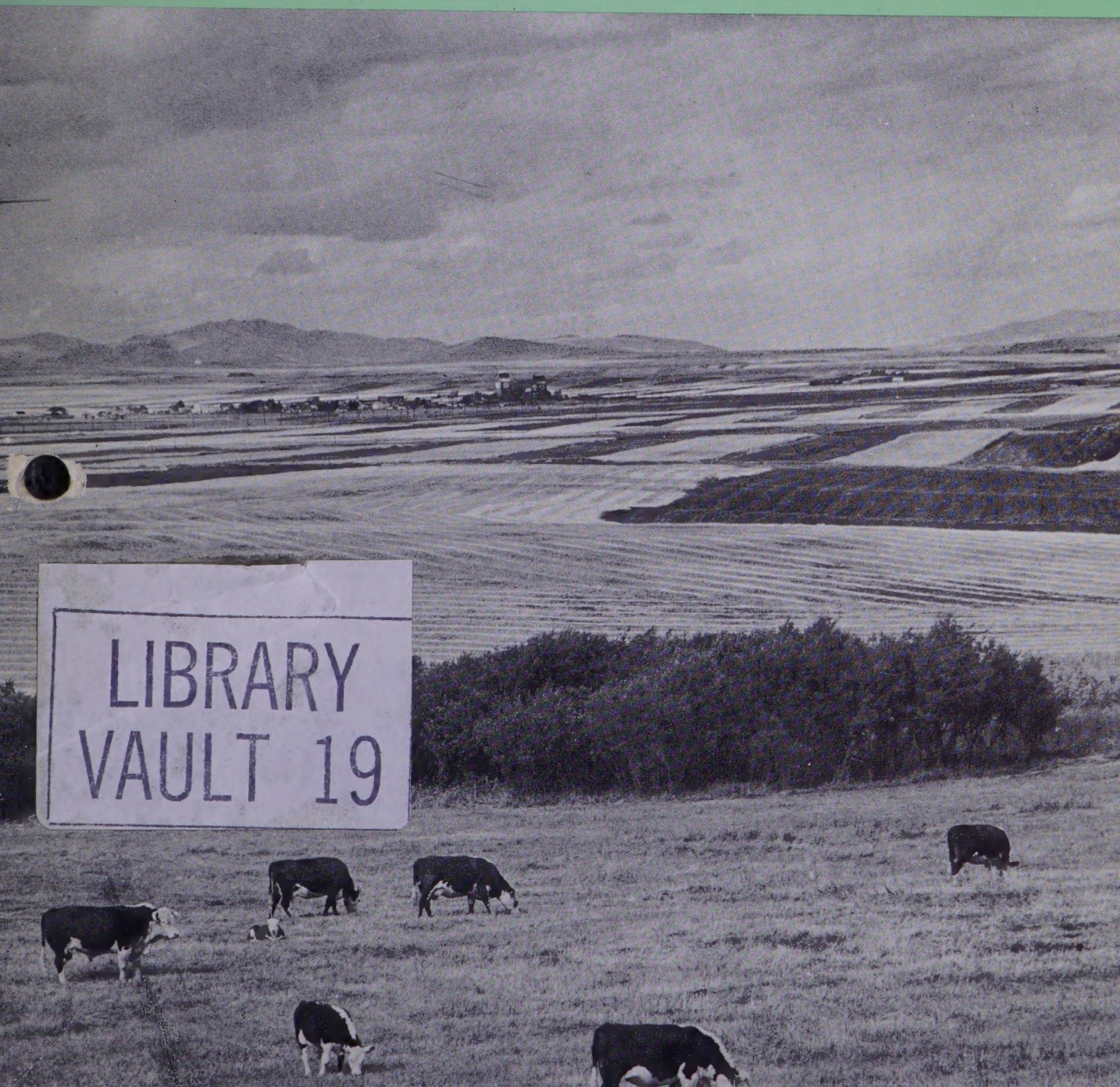
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Alberta

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## ... Foreword ...

A CONTINUING demand from prospective immigrants and others interested in farming in Alberta, has made a reprint of this booklet necessary. The material it contains has been revised and brought up-to-date.

I want to take this opportunity to emphasize that the development of farm resources in terms of area occupied in Alberta is now proceeding at a comparatively slow rate. Provincial land regulations carefully restrict new settlement to areas containing the resources needed to support adequate community life. Generally, a start toward farming in Alberta today is made through lease or purchase of an established enterprise.

In the first printing of this booklet, the assistance of "many writers, past and present, each of whom has described some factor which conditions the business of farming in Alberta" was acknowledged. The debt to contemporaries increases in the preparation of each revision. Almost every section has been rewritten on the basis of suggestions received from appropriate authorities. So many have given generously, it is not possible to select even principal contributors for individual mention.

The illustrations and maps used were obtained from a number of sources. The Canada Departments of Agriculture, Trade and Commerce, and Transport; the National Film Board; the Faculty of Agriculture and the Extension Department of the University of Alberta; the Alberta Film and Photographic Branch; and the Alberta Soil Surveys, co-operated to provide the material required.

Readers who desire further information should write: The Deputy Minister, Alberta Department of Agriculture, Edmonton, Alberta, Canada.



HON. L. C. HALMRAST  
MINISTER

L. C. HALMRAST,

Minister of Agriculture.





# FARMING IN ALBERTA, CANADA

by R. E. ENGLISH, Agricultural Statistician,  
Alberta Department of Agriculture.

## INTRODUCTION

THE purpose of this pamphlet is to describe the agricultural resources of Alberta and their development. The fundamental factors that affect farming—soil, climate, etc.; the utilization of the land already settled; the importance of quality in producing for an export market; how farms can be acquired and financed; governmental assistance to agriculture; and the organization of local administrative units are discussed. The maps, photographs and statistical data, were selected with a view toward helping the overseas reader to learn what living on Alberta farms is really like.

Though far from complete, the booklet will serve as a reliable guide on farming in this part of Canada.

We sincerely believe that Alberta offers as favorable an opportunity for farming as is available. Nevertheless, success in farming here as elsewhere depends, in large measure, on individual effort and initiative. The family that is not adapted to living on the farm is not likely to succeed.

## GEOGRAPHY

THE Province of Alberta lies east of the incomparable Canadian Rocky Mountains, between the sister provinces of Saskatchewan and British Columbia. Its southern boundary is the 49th-parallel of latitude, which passes south of the English channel and through France a few miles north of Paris, southern Germany and the middle of Czechoslovakia. Similarly its northern boundary, the 60th parallel of latitude, passes through the Shetland Islands, the southern parts of Norway and Sweden and through the Baltic sea south of Finland.

Alberta comprises 255,285 square miles, 248,000 square miles being land and the balance fresh water. Full-sized maps of Britain, Eire, Belgium, the Netherlands, Denmark, Switzerland, Austria and Hungary might be comfortably placed within her land area.

The Province is divided into townships which are approximately six miles square and numbered consecutively as they run north from the international boundary (Townships)





**Apples at Edmonton.**

and westward from the Meridians (Ranges). Townships are divided into 36 "sections" (numbered from 1 to 36), each one square mile (640 acres) in extent with a road allowance 66 feet wide around each two sections. A section is further divided into four quarter-sections comprising 160 acres. By learning the quarter-section, the number of the section, the township and range, the location of any piece of land in the Province can be readily determined.

It is estimated that some 68 million acres of land in Alberta are suitable for agricultural purposes. About 30 million acres are considered fair to good arable land, while another 10 million acres are classed as poor to fair arable. According to the 1956 census, 45,970,395 acres are in farms while 23,746,113 acres are improved.

## CLIMATE

**I**N Alberta, the severe continental climate prevailing in the interior of North America is modified by the frequent occurrence of warm, "chinook"

winds that blow in from the Pacific Ocean. These winds are fresh and balmy, having been dried on the westerly slopes of the mountains and then warmed by pressure as they descend into Alberta. "Chinooks" are a marked characteristic of winter in the ranching areas of the south; but they raise the temperature to some extent in every part of the Province.

The full effect of the "chinooks" is felt at Lethbridge where the average maximum daily temperatures through December-February is 30 degrees F. Comparable average temperatures for the same period at Regina, Saskatchewan, and Winnipeg, Manitoba, though situated in the same general latitude, are 13 and 11 degrees F. respectively.

While isothermal lines for the winter period extend in a northwest-southeast direction, in summer the lines tend to run more nearly north and south. The June-August temperature at Calgary is only 3 degrees higher than at Beaverlodge 300 miles farther north.

The length of the growing season limits the range of crops that can be successfully grown in Alberta. The number of days between 3 degrees F. of frost in the spring and fall varies from between 145 at Medicine Hat to 70 in farming areas along the foothills and in the area east of Athabasca.

In the hottest part of southern Alberta, the temperature on a midsummer day may be expected to rise from 55 degrees at sunrise to 85 degrees in the afternoon. In the Edmonton region, 50 to 70 degrees is the average range. Very high temperatures (100 degrees) occur at times in the southern prairie region, and less frequently in the north. With rare exceptions, however, the nights are cool.

**Corn Near Lethbridge.**







Strawberries at Morrin.



Red Currants at Beaverlodge.

Generally speaking precipitation is a limiting factor to crop production. But the fact that the growing season is the period of greatest rainfall, permits the efficient use of a high proportion of the total received. In years when there is just enough moisture to germinate the seed and supply the initial requirements of the young plants, very large yields of grain have been obtained because of timely summer rains. Rainfall is very variable from year to year, and, except in the irrigated areas, failure of the summer rains is a serious matter to the grain farmer and will result in feed shortages among ranchers who do not carry a reserve on hand. Another point to keep in mind is that percentage variability is greatest in areas which on the average receive the lowest precipitation.

Where rainfall is limited the rate of evaporation from the surface is important. In general evaporation is highest in the south of the Province because of higher temperatures and greater wind velocities in that region. Nevertheless, crops on sandy soils in all parts of the Province, suffer as a result of the loss of moisture from the soil surface in years when rainfall during the growing season is below average.

In all parts of Alberta there is risk of crop damage owing to hail. It is estimated that the average loss on acreage insured since 1919 was about 7 per cent. The incidence of damage, however, varies greatly between districts. Insurance rates are based on local experience.

## METEOROLOGICAL

Precipitation in Inches  
— 1921 to 1950 —

Average Daily Mean Temperatures  
Degrees F. — 1921 to 1950 —

Frost Free Periods\*  
— Days —

	Year	May-Aug.	Year	Mar.-May	June-Aug.	Sept.-Oct.	Dec.-Feb.	Ave.	Longest	Shortest
Medicine Hat ..	13.55	6.58	42.2	42.7	66.4	43.6	16.1	126	152	98
Brooks .....	13.28	6.98	39.5	40.5	63.9	40.7	13.0	120	161	86
Hanna .....	12.45	7.53	37.3	37.4	61.9	39.0	11.0	103	149	68
Coronation .....	14.29	7.44	35.7	36.2	60.4	37.7	8.5	94	137	14
Lethbridge .....	16.74	7.96	41.6	41.0	62.3	43.1	19.9	111	147	80
Calgary .....	17.47	9.79	39.0	38.6	59.5	40.5	17.3	92	127	43
Red Deer .....	16.47	10.07	35.8	37.4	58.8	37.9	9.2	79	113	48
Vermilion .....	16.55	10.43	33.6	34.8	58.9	36.0	4.5	75	112	38
Edmonton .....	17.63	10.17	36.8	38.2	60.0	38.5	10.2	100	144	44
Elk Point .....	15.15	8.64	32.0	33.3	57.7	34.6	2.5	64	103	23
Athabaska .....	17.38	9.47	33.4	34.7	57.9	36.0	5.1	59	87	15
High Prairie .....	17.78	9.19	34.8	36.7	58.7	36.6	7.1	81	116	54
Grande Prairie .....	18.30	8.06	34.8	36.0	58.5	37.0	7.8	104	141	81
Beaverlodge .....	17.32	7.74	36.1	36.9	58.1	37.9	11.6	94	140	27
Fairview .....	17.92	7.93	34.2	35.6	58.2	36.1	6.7	105	139	78
Fort Vermilion .....	12.76	6.56	28.8	30.7	59.2	31.1	-5.7	65	104	5

\*Over periods from 19 to 60 years except Grande Prairie with 9.



## HISTORICAL OUTLINE

THE early fur traders were Alberta's first farmers. About 1784, Peter Pond, one of the original partners in the North-West Fur Trading Company planted "a kitchen garden" near Lake Athabasca. The Hudson's Bay Company encouraged farming. Cattle, horses and pigs were introduced. Potatoes and barley seem to have been the principal crops. Wheat is not mentioned in early fur trading post journals perhaps because the varieties available failed to mature.

In 1869, Prince Rupert's Land became a part of the Dominion of Canada by purchase from the Hudson's Bay Company. The North-West Mounted Police were organized in 1874, and Alberta was formed as a territorial district in 1882. Finally, the completion of the Canadian Pacific Railway (1885) followed by the development of branch lines, made possible the general settlement of the country.

Under naturally favorable conditions the development of ranching in Southern Alberta was spontaneous. In 1886, beef cattle were shipped from the ranges to United Kingdom markets. Settlers established mixed farming enterprises between Calgary and Edmonton. In the nineties a market was secured for oats, hay, butter, meats, etc., in the newly-opened mining districts of British Columbia. At the end of the century, farm produce grown in Alberta supported the Klondike gold rush.

Rural Market Centre.



When Alberta was given provincial status in 1905, the pattern of her agriculture had taken definite form. With 30,286 farm holdings registered, 3 million bushels of wheat, 13 million of oats and 2 million of barley were produced. The live stock population was valued at \$27,305,444 and 82,830 head of cattle alone were exported. The production of butter, cheese, poultry products, mutton, pork and so forth, far exceeded the home demand. There were still many problems to be solved; but the suitability of Alberta soils and climate for agriculture had been established.

The accompanying statistical tables illustrate the development that has taken place since 1905. Some seventy-five thousand Alberta farms provide sufficient meat to provide for three times the one and a quarter million people in the province; the wheat produced would feed six million people. Specialty crops such as sugar beets, vegetables (for the fresh trade, canning and freezing), rapeseed, mustard, forage seed, etc., add to cash income received from the sale of field crops. Dairy products, poultry products, furs and honey are all produced in excess of home requirements.

A varied soil-climatic pattern in Alberta permits a considerable degree of specialization in farm production. Even in the mixed farming areas there is a strong tendency toward specialization in the production of one or two lines peculiarly adapted in the region. Such a situation is conducive to the production of high-quality commodities which is so important in competition for world markets.

The raising of good products is not confined to any particular class of farm. The finest flour is milled from Alberta wheat; and the quality of cattle that stock the ranges is probably not excelled anywhere. The producers of pure-bred livestock; the growers of cereal, legume and grass seeds; those who make a specialty of dairying, poultry raising or fur farming, all produce a generally high-quality product.

The production of good products is encouraged in a number of ways. It is



## STATISTICS OF AGRICULTURE FOR ALBERTA

		1931	1941	1951	1956
Total Population .....	No.	731,605	796,169	939,501	1,123,116
Farm Population .....	"	375,097	383,964	345,222	332,191
Percentage on Farms .....	p.c.	51.3	48.2	36.7	29.6
Number of Farms .....	No.	86,917	93,200	84,315	79,424
Farms Operated by:					
Owner .....	p.c.	72.6	62.5	62.7	60.8
Tenant .....	"	12.2	17.1	11.6	10.7
Owner-Tenant .....	"	14.9	19.8	25.0	27.6
Manager .....	"	0.3	0.6	0.7	0.9
Land Operated by Owner .....	"	69.1	61.7	65.9	64.6
Non-Resident Farms .....	"		10.2	9.9	11.8
Area in Farms .....	Ac.	38,977,457	43,277,295	44,459,632	45,970,395
Average Size of Farms .....	"	448	464	527	579
Improved Land .....	"	17,748,518	20,125,220	22,271,044	23,746,113
Under Crops .....	"	12,039,310	12,284,123	14,427,631	14,850,171
Pasture .....	"	524,586	625,578	1,112,825	1,279,894
Summerfallow .....	"	4,547,187	6,545,931	6,194,976	7,091,264
Other .....	"	637,435	669,588	535,612	524,784
Farm Cash Income from:					
Wheat .....	'000\$	39,198	54,105	179,175	134,531
Oats .....	"	2,968	4,312	12,885	11,418
Barley .....	"	659	1,646	27,839	34,543
Rye .....	"	92	240	4,478	3,857
Flaxseed .....	"	113	804	2,143	10,215
Potatoes .....	"	233	398	1,479	1,983
Vegetables .....	"	179	427	1,238	2,751
Forest Products .....	"	133	199	712	702
Other Crops .....	"	1,691	4,362	14,904	15,948
Total Crops .....	"	45,266	66,493	244,853	215,948
Cattle & Calves .....	"	6,560	19,064	95,105	87,776
Hogs .....	"	8,695	42,376	64,341	67,258
Sheep & Lambs .....	"	870	1,623	1,965	2,162
Dairy Products .....	"	6,930	10,240	26,955	31,253
Poultry & Eggs .....	"	3,182	5,146	20,005	26,591
Other Live Stock .....	"	1,329	2,671	6,002	5,665
Total Live Stock .....	"	27,566	81,120	214,373	220,705
Total Farm Products .....	"	72,832	147,613	459,226	436,653
Supp. Payments <sup>1/</sup> .....	"	—	7,709	4,235	1,319
Total Cash Income .....	"	72,832	155,322	463,461	437,972
Income in Kind .....	"	15,916	21,625	42,245	41,526
Value Inventory Change .....	"	4,333	—19,642	119,692	53,022
Gross Income .....	"	93,081	157,305	625,398	532,520
Operating & Depreciation Charges .....	"	81,345	90,876	233,454	257,952
Net Farm Income .....		11,736	66,429	391,944	274,568

<sup>1/</sup> Prairie Farms Assistance Act, etc.

a part of government policy—Federal and Provincial — to assist producers to secure quality sires, to promote the use of good seed and to encourage the adoption of approved production practices.

The activities of producers' associations are important. For example, the Canadian Seed Growers' Association, which maintains a branch in Alberta, accepts the responsibility for the quality of registered seeds offered for sale. This is accomplished by strictly regulating the manner in which seed pro-

duction specialists shall conduct their operations. Other producer groups, the dairy industry for instance, make a financial contribution toward the cost of inspecting and grading dairy products offered for sale.

Finally, almost all farm products offered for sale must be graded according to standards laid down by statute or regulation thereunder. In the main, the Federal government is responsible for establishing and enforcing grades but the work is approved by the Province and supported with legislation where necessary.





Ten Alberta Grade Steers Won Seven Top Places, Toronto Royal, 1957.

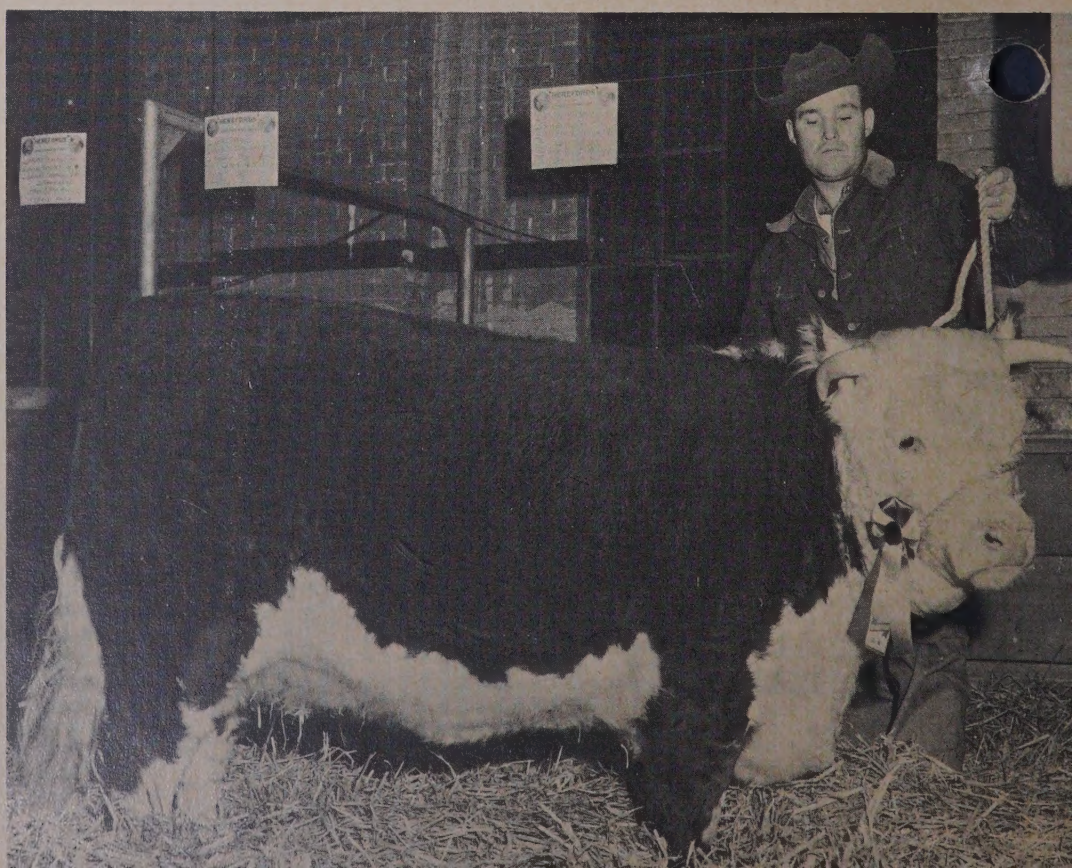
## ALBERTA FARMING IN THE SHOW WINDOW

**G**OOD produce encourages competition and the development of fairs and exhibitions. In Alberta 41 agricultural societies, the local bodies responsible for fairs, are in operation. In addition, fat stock and breeders' shows and sales are held in fall and spring.

Farmers attend fairs not only to view the products on exhibit, but also to learn how to improve the quality of the products they produce themselves.

In 1876 Alberta won championships in wheat and oats at the International Philadelphia Exhibition, and again in wheat at the World's Columbian Exposition at Chicago in 1893. At the World's Grain Exhibition held at

Junior Champion Female, Toronto Royal, 1960.







Champion Corriedale  
Ewe, Toronto Royal,  
1959.

Regina, Saskatchewan, in 1933, where no championships were awarded, Alberta won firsts in hard red spring wheat (2), late oats (2), alfalfa, sweet clover, timothy, brome and slender wheat grass.

The Royal Agricultural Winter Fair held at Toronto, and the Chicago International Grain and Hay Show and Livestock Exposition, are recognized as

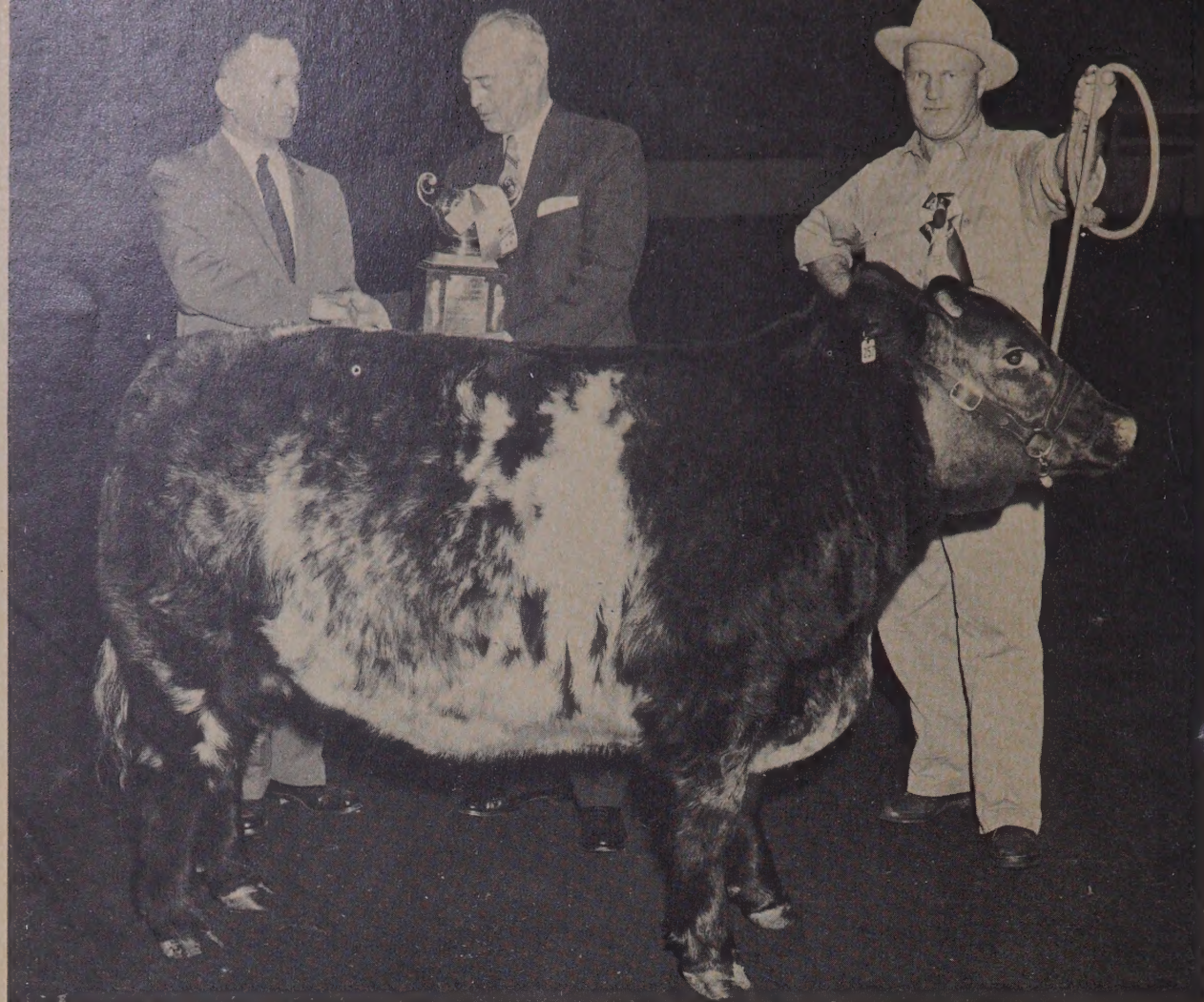
the premier agricultural shows in Canada and North America respectively. At each, Alberta entries regularly win a good share of major awards.

In the grain and seeds section at the "Chicago International", Alberta winnings were consistently spectacular. In the thirty-five years of the show, seventy-three championships, nineteen reserve championships, and seventy-

Champion Group of Steers, Toronto Royal, 1959.







Grand Champion Steer, Toronto Royal, 1958.

three first prizes, were included in awards brought to this Province.

After the First Great War, the University of Alberta initiated the showing of fat cattle at the big shows. The venture met with immediate success. In 1922, Alberta fat stock won the championship in Galloways and the Shorthorn special at Chicago; another Shorthorn was champion at Toronto, while a third won a championship at Guelph. At the "Toronto Royal" in 1927, Alberta did exceptionally well in

the fat stock division, winning grand and reserve championships as well as breed championships with Aberdeen-Angus, Shorthorn, Hereford and cross-bred entries respectively.

The big exhibitions reopened in 1946 after being closed for a period during the war. At the "Toronto Royal" shows held in 1951 to 1960 inclusive, Alberta reaffirmed her right to recognition as a producer of top-quality farm products. Following is a summary of her winnings in those years.

	Champion	Reserve Champion	First Prize	Other	Total
Horses .....	30	33	44	191	298
Cattle .....	88	70	187	984	1,329
Sheep and Wool .....	43	32	107	404	586
Swine .....	7	16	16	173	212
Poultry and Products* .....	4	—	95	90	189
Dairy Products* .....	6	4	160	580	750
Honey .....	—	3	8	28	39
Field Crops .....	33	22	124	650	829

\*Based on group award system.



## SOILS AND FARMING AREAS

**A**LBERTA soils are glacial in origin. The result is that there is considerable variation in basic soil materials that were unevenly mixed and laid down by ice action. With some exceptions therefore, uniformity in soil conditions even within relatively short distances cannot be depended upon. Nevertheless there are four fairly well defined soil zones in Alberta; namely, brown, dark brown, black and grey wooded. The boundaries between the soil zones are not distinct. Generally speaking there is an imperceptible change in climatic and soil conditions as one proceeds in a northern and western direction within the Province.

A characteristic type of agriculture has developed in each soil climatic zone. In addition a distinct agricultural area has been added in the south through the development of irrigation.

**THE BROWN SOILS:** The brown soils zone is semi-arid prairie. It occupies 12.5 million acres. Two million acres are classed as fair to good arable land and 4 million as poor to fair arable. Over 7 million acres are in occupied farms, with about 3 million under cultivation.

The average annual precipitation in



**A Well-planned Farmstead.**

the brown soils zone varies from 11 inches between Brooks and Medicine Hat to 14 inches in the north. Although most of the rainfall comes during the growing season, the lack of moisture is a seriously limiting factor to production in about one-half the years. Yield variability is high.

The growing period in the south of this zone is the longest in the Province, being about 145 days at Medicine Hat. This factor is most important in permitting the production of a wide range of crops under irrigation.

Wheat is the predominating cash crop on the brown soils; the quality produced is excellent. Generally a wheat-fallow or wheat-wheat-fallow rotation is followed. However, it is recommended that a rotation that will keep one-quarter to one-third of the crop land in grass should be adopted. Crested wheat grass and Russian wild rye are drought resistant and are the

**A Typical View in the Black Soils Area.**





# SOURCES OF FARM REVENUE

## BY TYPE-OF-FARMING AREAS★, ALBERTA, 1950

(Classified by Canada Department of Agriculture from 1951 Census Data)

Area No.	Type of Farming	SOURCE OF FARM INCOME, 1950				
		— per cent —				
		Grain	Cattle	Swine	Dairy	Other
1	live stock—cash crop .....	27.6	41.5	.....	9.9	21.0
2	live stock, cattle .....	20.4	66.2	.....	2.4	11.0
3	cash crop — live stock .....	57.1	36.6	.....	.....	6.3
4	grain, wheat .....	85.0	8.3	1.8	.....	4.9
5	cash crop — live stock .....	40.1	23.5	5.2	2.4	28.8*
6	live stock — cash crop .....	37.1	34.6	9.6	.....	18.7†
7	grain, wheat .....	76.0	16.0	3.6	.....	4.4
8	live stock, cattle .....	22.7	59.0	4.9	7.0	6.4
9	grain, wheat .....	66.7	29.1	.....	.....	4.2
10	live stock — cash crop .....	39.7	47.7	3.3	5.3	4.0
11	live stock, general .....	28.0	37.0	16.8	13.4	4.8
12	cash crop — live stock .....	56.2	24.6	7.4	6.1	5.7
13	live stock — dairy .....	9.7	31.6	8.9	25.8	24.0
14	live stock — cash crop .....	40.1	34.0	13.5	6.5	5.9
15	live stock, general .....	21.6	28.7	23.0	13.4	13.3
16	live stock — cash crop .....	33.6	18.5	23.2	15.9	8.8
17	live stock, dairy .....	21.3	24.0	17.7	24.1	12.9
18	live stock — cash crop .....	38.4	30.4	16.4	9.3	5.5
19	cash crop — live stock .....	62.5	25.4	5.7	.....	6.4
20	live stock — cash crop .....	34.9	15.9	15.5	11.2	22.5†
21	live stock, general .....	21.3	29.9	30.4	9.8	8.6
22	live stock — cash crop .....	30.7	19.5	20.7	9.3	19.8†
23	live stock — cash crop .....	17.4	10.9	10.1	.....	61.6‡
24	cash crop — live stock .....	47.7	21.6	11.8	.....	18.9†
25	live stock — cash crop .....	22.5	45.3	14.0	10.1	8.1
26	grain, general .....	56.4	12.0	6.8	.....	24.8†
27	cash crop — live stock .....	41.2	38.9	4.8	.....	15.1†
28	live stock — cash crop .....	42.4	32.8	13.4	4.8	6.6
29	cash crop — live stock .....	71.5	5.9	3.6	.....	19.0†

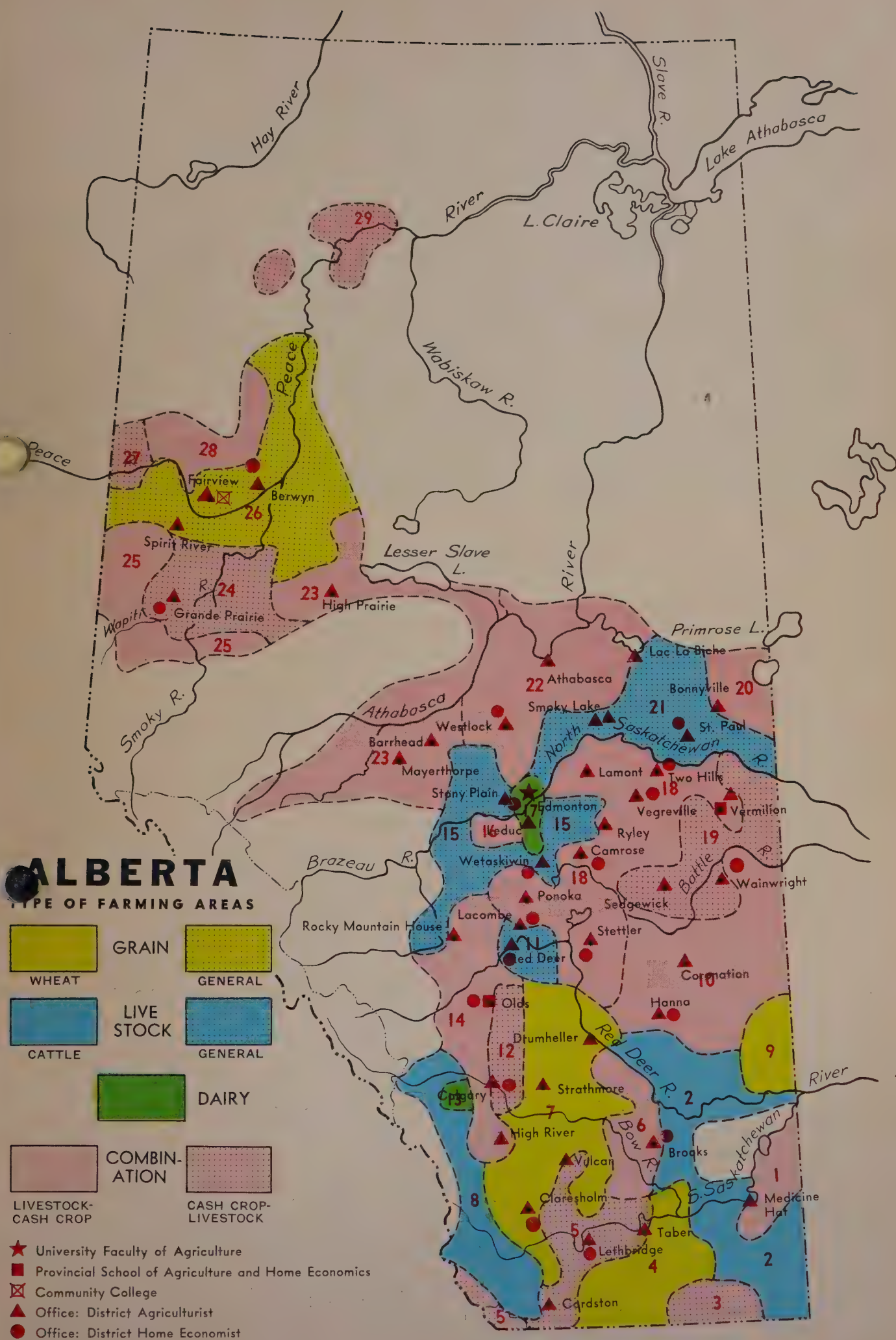
★ A specialty type-of-farming area is indicated when 70 per cent or more of gross farm revenue was received from the sale of live stock and products, or field crops. When over 40 per cent of the total revenue from the major source of income in a specialty type-of-farming area, came from the sale of one product (cattle or wheat, for example) a sub-type is indicated — "live stock, dairy"; "live stock, cattle"; "grain, wheat", etc. Otherwise the terms, "live stock, general" and "grain, general", are used. Combination types-of-farming areas are shown when less than 70 per cent of gross farm revenue is obtained from the sale of either live stock and products or crops. A "cash crop — live stock" combination indicates that more than 50 per cent of gross farm revenues come from the sale of field crops; a "live stock — cash crop" combination indicates that live stock and products were the major source of income.

\* Sugar beets, potatoes and canning crops are important.

† Major forage seed producing areas.

‡ Forest products, 37.4 per cent; furs, 18.1 per cent.









**Combine Harvester in Operation.**

only tame grasses suitable in most parts of the region. The trend toward larger farm units and good prices for live stock are bringing about some changes in this direction. The production of grasses as seed crops has been developed in the northern part of the zone.

The raising of cattle and sheep on the short-grass range lands which are unsuitable for cultivation has always been important. While the carrying capacity of these lands is relatively low — 25 acres are required to graze one head of cattle six months each year—the nutritive value of the grasses they produce is unexcelled.

**THE DARK-BROWN SOILS:** The dark-brown soils zone consists of nearly 16 million acres which were originally grasslands dotted with small tree clumps. Approximately 9 million acres are classed as fair to good arable land, while another 1½ million acres are considered as poor to fair arable. There are approximately 14 million acres occupied and 7 million cultivated. About 2 million acres of fair to good arable land in this zone are not yet cultivated. The percentage of range and waste land is much smaller than in the brown

soils zone and the arable land occurs in larger blocks.

Most of the dark-brown soils receive an average of 14 to 15 inches of precipitation annually. Except in local areas with light, sandy soils, this is sufficient to permit the introduction of permanent farming systems based on crop rotations, including grasses and legumes. The lighter soils are not suitable for cultivation.

Temperatures and the length of the growing season vary a great deal in this zone. At Lethbridge in the south, the average growing period is about 135 days and frost is not considered a limiting factor in general farming. Aided by irrigation a great variety of canning and specialty crops — corn, sugar beets and other vegetables — is grown. Proceeding northward, the growing season gradually shortens to about 120 days in the centre of the zone. In the northeastern portion, between Coronation and Vermilion, the period between 3 degrees of frost in spring and fall is reduced to an average of about 100 days. In this region the number of crops that can be grown are limited. The incidence of frost damage in the production of common





#### Most of Alberta's Hogs are Produced on the Black Soils.

cereals which are the main crop, is not uncommon.

The most extensive wheat growing regions in the Province are in the dark-brown soils zone. Normally three-quarters of the area seeded to cereals is devoted to wheat production, and the quality produced is good. The usual rotation is wheat-wheat-fallow but in the north, coarse grains are frequently substituted as a second or third crop after fallow.

There are a considerable number of range cattle and some range sheep raised in the southern part of the dark-brown soils zone. Mixed farming, with beef cattle as the main variation, is more prevalent in the north and on the western boundaries. The tendency now is to extend the use of alfalfa-grass mixtures for hay as a basis for diversification where rainfall permits.

The amount of grass, particularly brome, produced for seed in the dark-brown soil zone has increased in recent years.

**THE BLACK SOILS:** The black soils are the most productive soils in Alberta. The region they occupy is generally referred to as the "parkland" country. It contains about 10 million

acres of which 7.5 million are fair to good arable land. About 9.5 million acres are occupied, and 5.5 million are under cultivation. Most, if not all, of the arable land in this zone is occupied.

Annual precipitation on the black soils varies from 15 to 20 inches, but most of the area lies in the 17 to 18-inch precipitation zone. This is the highest for the Province. Nevertheless, while serious drought rarely occurs, moisture is not infrequently a limiting factor in crop production.

#### Experiments in Irrigation at the Lethbridge Research Station.

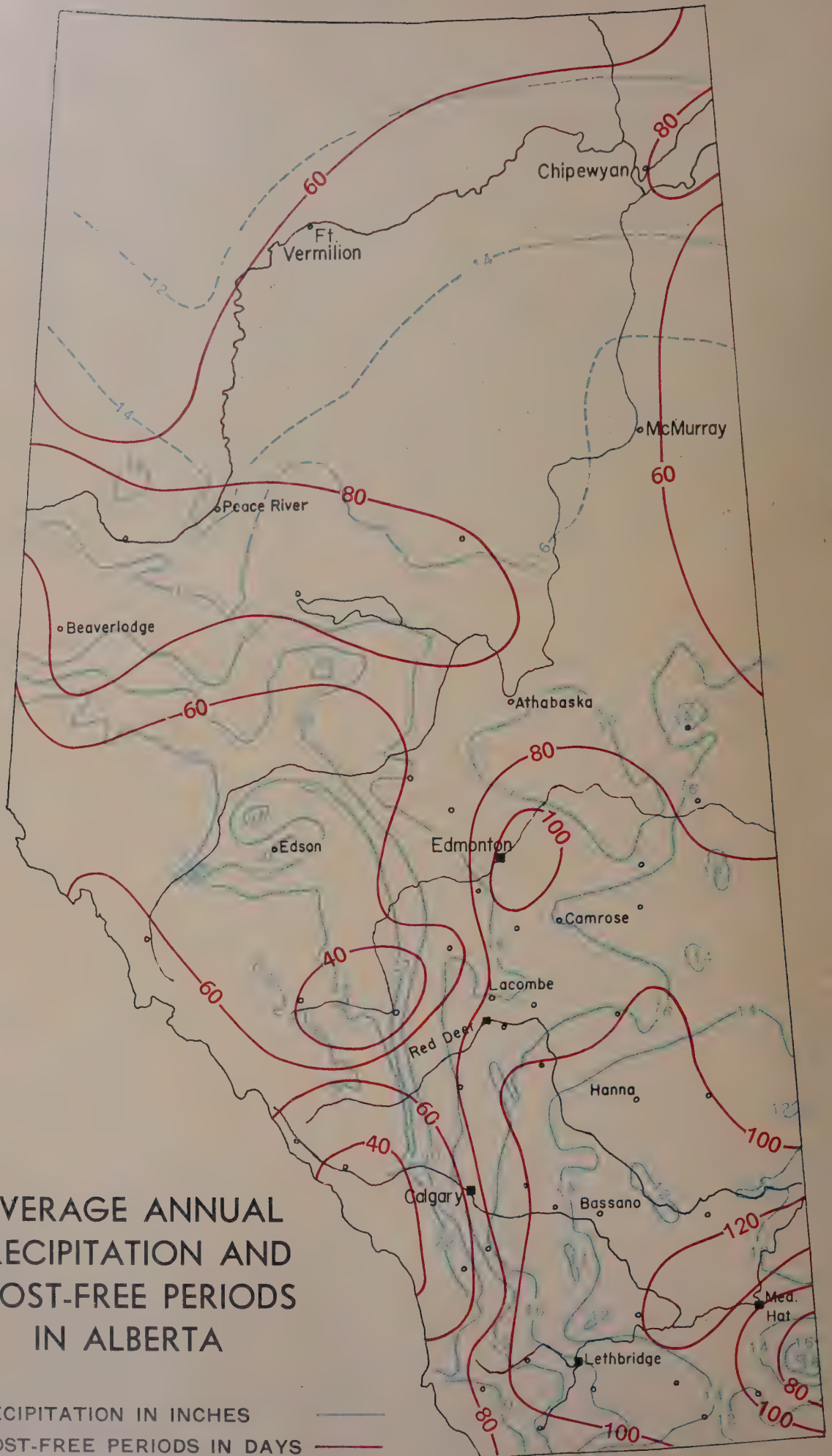




# AVERAGE ANNUAL PRECIPITATION AND FROST-FREE PERIODS IN ALBERTA

PRECIPITATION IN INCHES

FROST-FREE PERIODS IN DAYS









The length of the growing period varies from 120 days southwest of Edmonton to as low as 100 days in the extreme north and east of the zone.

A diversified system of agriculture is most highly developed on the black soils. Coarse grains, grasses and legumes all do well and form the basis of an expanding livestock industry. Most of the bacon exported from Alberta originates in this soils zone, and returns from dairying are estimated to approximate returns from beef cattle. There is a tendency on the part of farmers to substitute longer rotations, which include grass and legume crops, in place of the grain-fallow rotation practised formerly.

Fairly good quality wheat is grown on the black soils adjacent to the dark-brown soils. The quality is somewhat low in other parts, and the production of wheat should not be emphasized. There has been a definite shift to coarse grains in recent years. Most of the malting barley produced in Alberta is grown on the black soils.

**THE GREY-WOODED SOILS:** The grey-wooded soils zone contains most of the undeveloped agricultural lands in the Province. Including the Peace

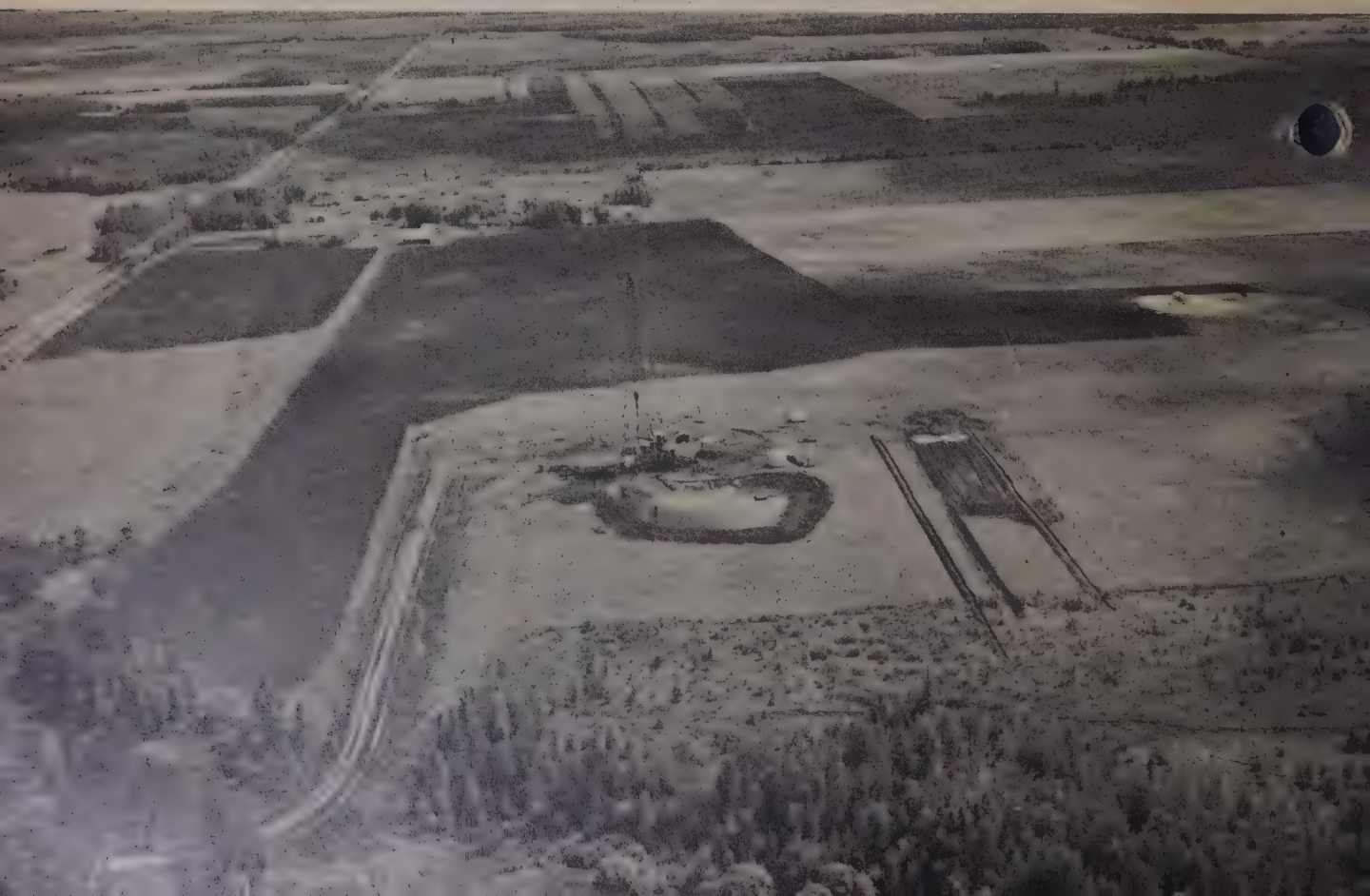
River transition soils the zone comprises about 110 million acres. However, the area may remain relatively undeveloped for many years owing to inaccessibility, heavy tree cover and soils of low-fertility. The total area occupied or available for settlement is estimated at 25 million acres, of which 15 million might be arable. Only 10 million acres are occupied at present with 3 million acres under cultivation. There is known to be some arable land in the area presently withheld from settlement.

It is estimated that, on the average, the cost of clearing and breaking tree-covered land per acre is as follows: brushing, \$13; burning, \$3; breaking, \$10; and picking roots, \$5.

Precipitation in the central portion of the grey-wooded soils zone averages from 17 to 19 inches. The amount received decreases to the north, the average at Fort Vermillion being about 13 inches. Owing to a relatively low rate of evaporation, a high proportion of the moisture received is available for crop production.

The shortness of the growing season definitely limits the types of agriculture that can be successfully practised on the wooded soils. In small areas the

Farming in the Oil-Rich Leduc Area.







**Registered Beef Shorthorns.**

average period between 29 degrees Fahrenheit in the spring and fall is 110 days, but a major portion of the zone averages 100 days or less with some parts under 75 days. The growing season becomes rapidly shorter toward the mountains and slowly shorter toward the north.

Wooded soils vary widely in quality but are generally lower in fertility than soils in the other zones. They require the application of mineral fertilizers. With minerals added, legumes do exceptionally well and will provide the nitrogen necessary to make these soils productive. Except in "islands" of above-average soils types, they produce wheat of poor quality for bread-making but are well adapted for the production of feed grains. The quality of malting barley raised in this zone is unexcelled.

Since it is already apparent to farmers in the area that the wooded soils will not stand to be cropped with grain continuously, a trend toward mixed farming including the production and utilization of forage crops is steadily developing in the area. The production of feed grains and forage for feeding to livestock — dairy and beef cattle and hogs — is increasing.

Cereal and grass seeds of high quality have been produced in the Peace River district since the area was first settled. During the Second World War, the production of legume seed was de-



**Cattle Round Up and Dipping.**



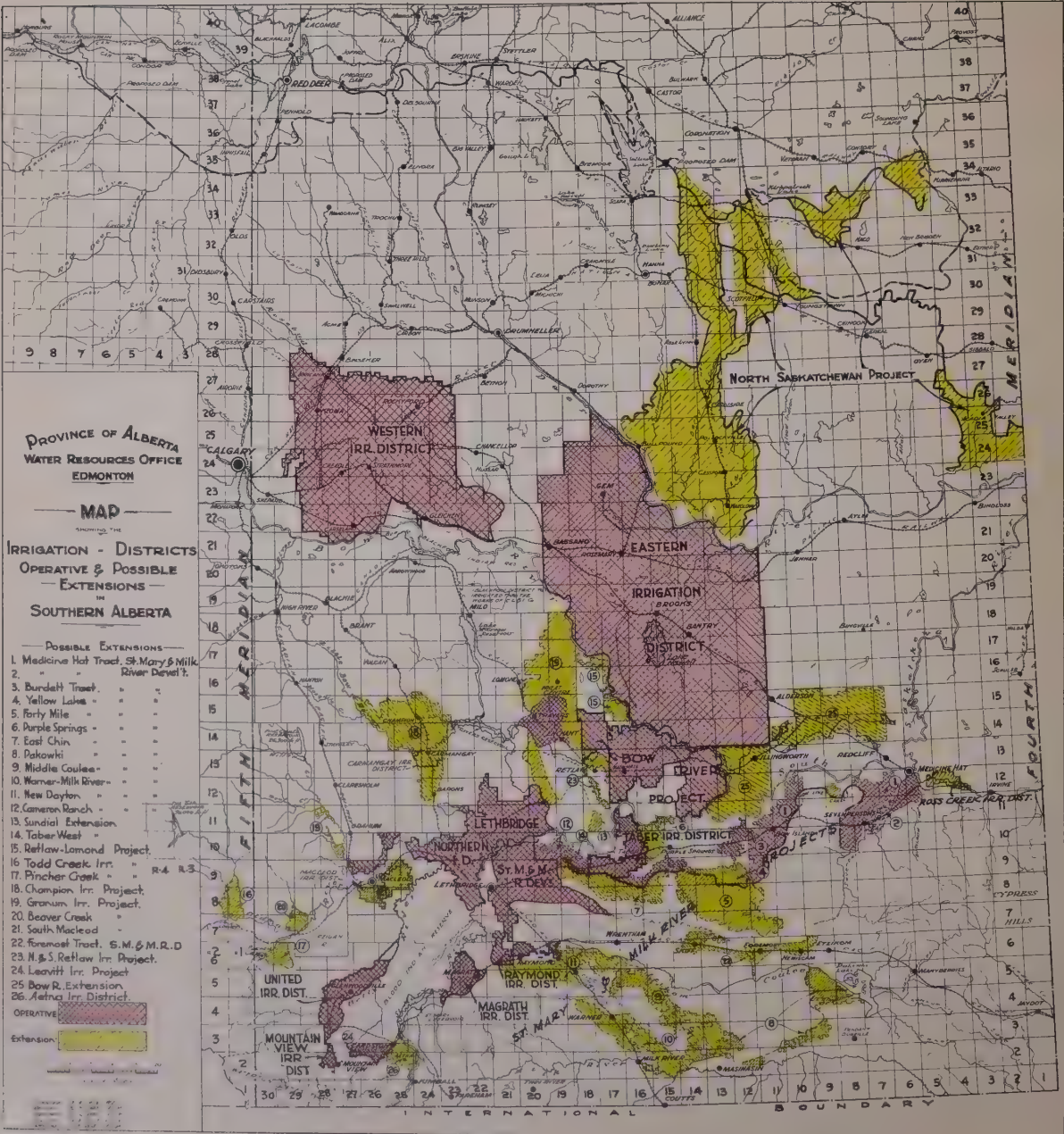
veloped in all parts of the grey wooded soils zone. This crop proved to be remarkably well adapted to the area and prospects are that the acreage devoted to alfalfa, alsike clover, red clover and sweet clover will be limited in future only by the demand for forage crop seeds.

**IRRIGATION:** Alberta is advantageously situated with respect to a supply of water for irrigation. The semi-arid part of the Province is traversed by the six largest tributaries of the South Saskatchewan River; and the topography of the region makes possible the construction of storage reservoirs at relatively low cost. Moreover, the streams are

fed by mountain glaciers that provide water in quantity during the summer months when irrigation is in progress.

Surface waters are vested in the Crown and are administered under the Water Resources Act. The Irrigation Districts Act provides for the formation of irrigation districts and authorizes the raising of loans under by-laws adopted by voters of the district.

There are now fifteen major irrigation projects in operation with 845,000 acres of land now being irrigated. However, the expansion of irrigation facilities are continuing with the development of the St. Mary and Milk River project and the Bow River project. The







**Unloading Sugar Beets at Factory.**

total potential irrigable area in the province, including privately-owned projects, is estimated at nearly two million acres. In 1950, 4,044 farmers reported an average irrigable area of 140 acres. Assuming that the area irrigated per farm remains the same, a total of approximately 14,000 irrigation farms may be developed in Alberta.

In the irrigated areas there are four main types of farms. These are grain, livestock, specialty crops and mixed farming types. From 35 to 45 per cent of the crop land is seeded to wheat. Wheat acreage is highest in districts with no facilities for handling specialty crops. For that reason, sugar beet production is centred at Raymond, Picture Butte and Taber, and canning crops

are grown at Taber and Lethbridge. Mixed farming is most generally followed on the larger farms.

A drainage problem is created in irrigation where the application of water results in damage to land and crops in low-lying areas. Likewise in some central and northern areas, the slow movement of water off the land in the spring delays seeding and increases the danger of crop damage owing to frost in the fall. In each case, government engineers are available to assist with the safe disposal of surplus surface water. In some situations, the province pays one-half the cost of ditching done by municipal authorities. Ditches already provided drain in excess of 600,000 acres.

**Cattle on Irrigated Pasture.**



**Irrigation Dam on the Bow River.**







Holsteins are a Popular Dairy Breed.

LAND TENURE

In 1956 there were 79,424 farms in Alberta. They were distributed by size groups as follows:

	Number	Per Cent
1 to 4 .....	361	0.5
5 to 10 .....	915	1.2
11 to 50 .....	1,467	1.8
51 to 100 .....	1,283	1.6
101 to 200 .....	17,493	22.0
201 to 299 .....	3,790	4.8
300 to 479 .....	24,237	30.5
480 to 639 .....	10,107	12.7
640 to 959 .....	10,110	12.7
960 to 1,279 .....	3,973	5.0
1,280 acres and over .....	5,688	7.2

The size of the individual farm is determined to a large extent by the capacity of the land to produce and its adaptation for the use of large-scale machinery or for ranching. Except

where irrigation has been introduced, southern Alberta divides naturally into areas suitable for ranching and wheat growing respectively. In central and northern districts where higher rainfall and rolling topography has resulted in considerable diversification, the average size of farm is smaller than in the south.

A high proportion of farmers in Alberta own their own farms. The census figures for 1956 show that 61 per cent of all farms are fully owned while 28 per cent are partly owned. Only 11 per cent of the total are wholly rented. On an acreage basis, 29,707,927 acres (65 per cent) are owned and 16,262,468 acres, including lands held on long-time Crown leases for ranching purposes, are rented.

Dairy Plant Manufacturing Butter and Evaporated Milk.





## HOW A FARM MAY BE ACQUIRED

**T**HERE are several ways of getting a start on a farm in Alberta. You may purchase or lease an established farm, or you may secure a homestead sale or lease on undeveloped Crown land. Whichever method is decided upon, care should be taken to settle in a district and on land which is adapted to the kind of farming you want to undertake. The suitability of the farm you acquire will in large measure determine your success.

If you possess the necessary funds you may purchase a farm in any part of the Province. Present and suggested long-time land values are discussed below. The terms of sale vary, but at least one-third, preferably two-thirds, of the purchase price is usually required to be paid at the time of purchase. Frequently, the balance owing with interest is made payable on a crop share basis. This share is generally one-third of the grain produced delivered at the local market. Such an arrangement provides protection in the case of poor crops or low prices. When a mortgage is given to secure money for purchase, repayment is required in



**Silvia Pabst Texal — Three Times Grand Champion at the Toronto Royal.**

fixed annual amounts. By either method of financing five per cent is the usual rate of interest charged.

A relatively small number of Alberta farmers rent all the land they occupy. However, this form of tenure will continue to be used as a means of getting started in farming. On grain farms the crop-share agreement is general. Usually the landlord maintains his real estate by paying for building and fencing repairs, fire insurance and taxes, and receives one-quarter to one-third of the crop delivered at the market depending on the grade of land.

**A Herd of Good Ayrshires.**







**In 1960, Alberta Farmers Marketed Four Hundred and Ninety Thousand Butcher Steers and Heifers. Sixty-Three Per Cent Graded Choice; Twenty-Three Per Cent Were Good.**





Swathing Red Clover Seed Crop.



Championship Wheat at Left. Alberta Holds an En-  
viable Record for Awards  
at Seed Shows.

World Wheat Champion.

Central Seed Cleaning Plant.







**Heavy Clearing.**



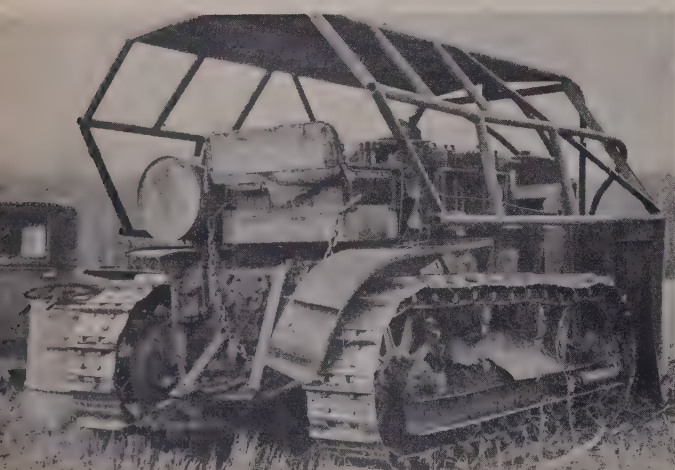
**A Well-Developed Homestead.**



**Early Settlers Used an Axe.**



**Cattle Contribute to Success.**



**Modern Clearing Equipment.**

Should he provide part of the equipment, feed, seed, etc., the landlord's share is proportionately greater. In mixed farming areas, there is a tendency to enter into agreements that divide returns from livestock enterprises as well as grain growing. To be successful each party to a livestock share-rental agreement must be well acquainted with and have the confidence of the other party.

Lastly, a British subject or Canadian citizen or one who declares his intention to become naturalized and (unless a veteran as defined under The Veterans' Land Act, 1942) who has resided in Alberta for a total of at least one year in the three years immediately prior to the date of making application may apply for a homestead lease on 160 acres or 320 acres of Crown land.

Certain minimum requirements regarding tenure and improvements

**New**

**Breaking.**





**Red Clover Seed Crop.**

must be met. No rent is charged during the first three years. After the third year, a one-eighth share of the crop is paid as rental until such time as the lessee applies for and obtains notification or title.

After complying with the terms of the lease for five years, the land may be purchased at the rate of \$100.00 for the first quarter section (160 acres) and \$1.25 per acre for each additional acre. The purchase price is reduced by 20 per cent each year after the fifth year in which the lessee complies with the terms of the lease so that at the end of ten years it is possible to obtain title without payment of a purchase price.

There is provision for a settler to obtain a homestead sale instead of a homestead lease. The purchase price of the land is determined by inspection and is payable over a ten to twenty-year period depending upon valuation.

The cultivation requirements under a homestead sale are identical to the cultivation requirements under a homestead lease. However, the purchaser is required to pay taxes instead of a share of the crop commencing the fourth year of the sale.

Subject to certain conditions of eligibility, an applicant may obtain a homestead sale for one quarter section, one half section or three quarter sections if three quarter sections are required to provide a minimum of 240 acres of arable land.

When a homestead lessee or a homestead purchaser has cleared and broken a minimum of 35 acres, he may apply for a government loan of \$1,000.00 for additional clearing and breaking. The loan is repayable in annual instalments with interest at  $3\frac{1}{2}$  per cent.

Most of the land remaining for homestead is situated in the grey-wooded soil zones. It is estimated that probably 20 million acres, half of which is suitable for cultivation, might ultimately become available for settlement. The progress of new settlement, however, will depend on a number of factors. Transportation facilities must be developed in some areas. Other considerations are the cost of clearing and development, and the future demand and price of agricultural products. New settlement is restricted to areas that will adequately support community life.





A Well Developed Farmstead in Central Alberta.

## INVESTMENT IN FARMS

**T**HE amount of capital required in farming has increased substantially in recent years. At the same time, efficient management is becoming an increasingly important factor. Many farms established on a relatively modest scale or under lease arrangements, have been successfully developed to become full-scale economic units.

The selling price of land varies widely between and within soil zones. Also, land prices vary according to size of parcel, condition and use. The total capitalization of a successful farm business is the most satisfactory measure of capital requirements in farming.

Various studies and reports provide

some information relative to investment on economic farms in different parts of the province. The estimates shown below, therefore, are based on groups of farms that must be considered above the margin in efficiency and productivity.

(a) Cattle ranches along the foothills between Cochrane and Pincher Creek, \$175,000.

(b) Farms on brown soils, growing principally grain, by size: small, \$20,000; medium, \$42,000; and large, \$83,000.

(c) Dairy farms supplying fluid milk to metropolitan areas: Edmonton, \$55,000; Calgary, \$57,000; Lethbridge, \$75,000.

**Constructing  
a Water Reservoir,  
"Dug Out," in the  
Peace River Coun-  
try.**





(d) General live stock farms on black soils in the Red Deer-Lacombe region: \$58,000.

(e) Irrigated farms at Taber growing canning peas, canning corn, sugar beets, livestock, etc.: \$62,500.

(f) Irrigated non-specialty farms at Vauxhall: \$37,000.

(g) Twenty-eight successful farms on grey wooded soils in the "fringe" area: \$31,250.

The size of farms, the acreage improved, etc., in Alberta are shown in the accompanying table.



Alberta Bred and Owned.

	Number of Farms	Acres Per Farm					
		Total	Improved	Cropped	Pasture	Fallow	Other
Medicine Hat .....	2,191	1,910	591	341	13	231	6
Lethbridge-Brooks .....	4,850	814	447	257	21	163	6
Macleod .....	2,957	865	413	225	25	157	6
Hanna .....	2,384	2,073	590	343	33	201	13
Vulcan-Drumheller .....	4,765	795	589	318	20	245	6
Calgary .....	5,191	572	331	206	26	92	7
Sedgewick .....	5,748	765	408	245	26	130	7
Red Deer .....	6,955	348	207	143	17	41	6
Foothills .....	252	930	87	68	6	9	4
Vegreville .....	11,121	431	266	179	11	70	6
Edmonton .....	9,219	287	178	128	14	30	6
St. Paul .....	5,228	356	167	108	9	43	6
Athabaska .....	7,887	339	180	123	11	40	6
Edson .....	1,113	335	104	69	10	19	6
Peace River .....	9,563	418	233	162	9	56	6
PROVINCE .....	79,424	579	299	187	16	89	7

Haying in the Athabasca Area.







In the Shadow of the Rockies.

## FARM CREDIT FACILITIES

**I**N Canada the Provinces have jurisdiction over property and civil rights. In keeping with its responsibility in this connection, the Alberta Government has made provision by legislation for the registration of securities, the rights of creditors and borrowers and the procedure to be followed in the repayment of debts.

**Short-Term Credit:** Many Alberta farmers are engaged in grain growing and live stock operations on a large scale. To carry on their businesses successfully they require access to short term or seasonal credit. The Provincial treasury branches and the chartered banks provide most of this type of credit. Security is taken on livestock, threshed grain, grain storage tickets, or other highly liquid collateral. Money advanced for the purchase of seed, binder twine and the cost of threshing becomes a first charge upon the crop grown or harvested therewith. Financial assistance is made available through the Alberta Feeder Associations' Guarantee Act, to help feeders finance the purchase of cattle and lambs for finishing.

**Intermediate Term Credit:** The sale of farm machinery, equipment, lumber

and livestock on terms has in effect, provided farmers with considerable intermediate term credit. Usually a cash payment is made at the time of purchase with the balance secured by lien agreement. Chattel mortgages are extensively used when additional security is required.

The Farm Improvement Loans Act proclaimed by the Government of Canada on March 1, 1945, provides for intermediate credit to farmers for the improvement and development of farms and for the improvement of living conditions thereon. Farm improvement loans are made by chartered banks which are guaranteed against loss by the Government up to ten per cent of the aggregate principal amount. Repayments are arranged on the instalment plan.

Money may be secured under the Act for (1) the purchase of farm implements, machinery and trucks; (2) farm home building, repair, improvement and alteration; (3) for the purchase of livestock; and (4) for the clearing and breaking of land.

The Alberta Farm Home Improvement Act, 1959, provides a guarantee on loans to farmers for the purpose of improving the farm home. The guar-





**A Well-Developed Homestead.**



**Cattle Contribute Toward Success.**



**A Newly Settled Area.**



antee applies to loans not in excess of \$2,000 and must be for things affixed to the home.

**Long-Term Mortgage Credit:** The principal sources of farm mortgage funds in Alberta are the Canadian Farm Credit Corporation and the Alberta Farm Purchase Board.

The Canadian Farm Credit Corporation is a self-governing crown corporation. It may approve first-mortgage loans not to exceed \$20,000 or 75 per cent of the appraised productive value of the farm. Loans are to be used to acquire farm land, fertilizers, seed, live stock and equipment; to improve the mortgaged farm land; to discharge liabilities; or for any other purpose necessary for the efficient operation of an economic farm unit. The corporation may also approve supervised loans in amounts up to \$27,500 secured by farm land and chattels. The interest rate on both types of loan is five per cent; the term must not exceed thirty years. However, crop share agreements are available to borrowers in the Prairie Provinces who are engaged principally in the production of grain crops for cash sale.

The Alberta Farm Purchase Credit Act and regulations thereunder are intended to (1) assist young men to become farmers; (2) facilitate father to son transfers, and (3) encourage the development of economic farm units.

Applicants for loans must have resided in Alberta for three years; be Canadian citizens or British subjects between the ages of 21 and 55 years of age; have a minimum of three years farming experience and are or intend to become bona fide farmers; and have or can acquire the live stock and equipment necessary to establish a successful farm. Credit is provided only for the purchase of land. The value of the land owned and/or to be purchased must not exceed \$30,000.

The Farm Purchase Board will loan 50 per cent of the price of the land to be purchased or a maximum of \$10,000. The borrower must make a down

**New Fences  
Change Old Trails.**





The One-Way Disc Harrow and Seeder is a Relatively New Implement. Though Trash is Light in This Field the "Discer" is Adapted for Conserving Cover.

payment of not less than 20 per cent (unless waived by the vendor as may be the case in a father-son transaction). Normally, the vendor finances 30 per cent of the total with full payment guaranteed.

District Farm Purchase Boards receive and process applications for loans and otherwise serve purchaser and vendor. However, loans accepted by a local board must be approved by the provincial board. Loans are repayable in 20 annual instalments provided payments do not extend beyond the borrowers' 66th birthday. The principal owed the vendor is retired first. The interest rate of 5 per cent includes sufficient to provide life insur-

ance in the amount of the liability outstanding.

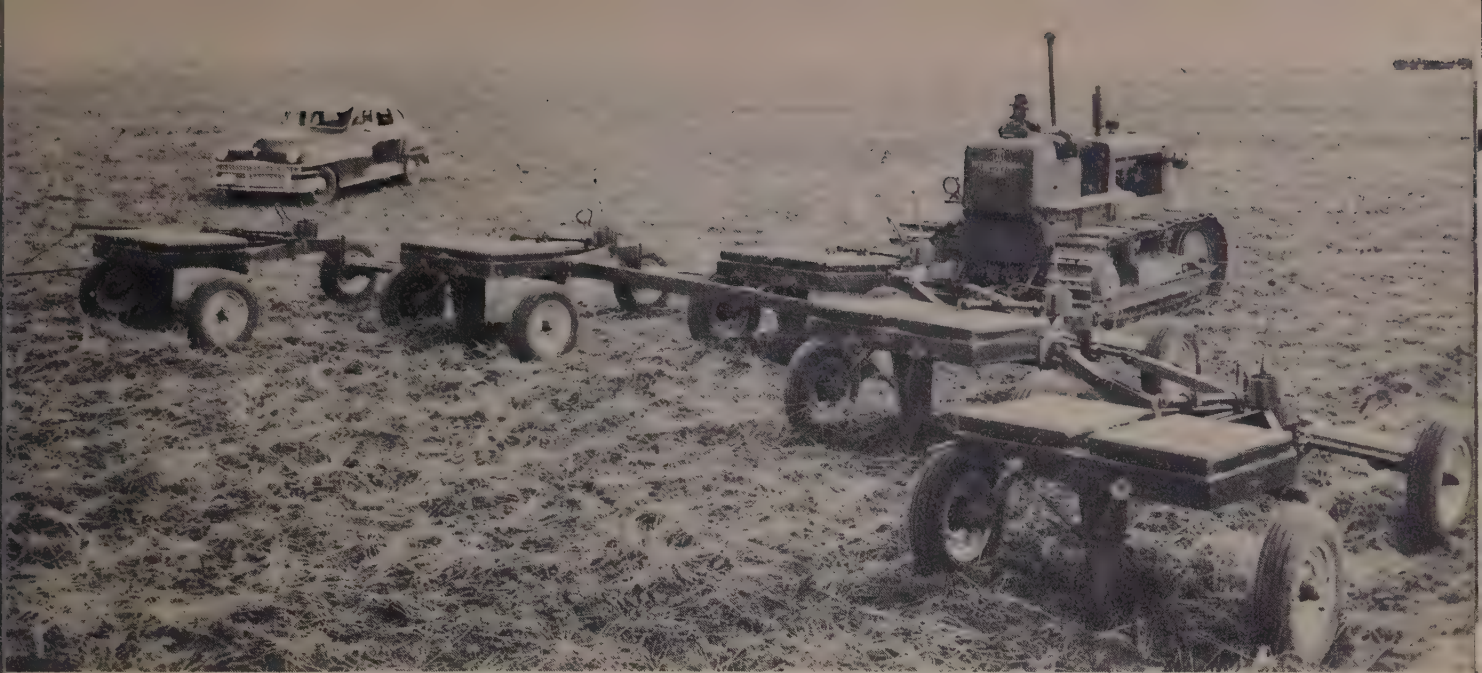
## FARM MECHANIZATION

THE application of engineering science to farming has played an important part in the agricultural development of Alberta. A wealth of undeveloped agricultural resources in relation to the man-power available has tended, since the early days of settlement, to direct the attention of farmers toward labor-saving machinery and techniques in production. The increase of machinery on farms by five-year intervals (census years) from 1936 to 1956 is shown in the following table:



Labor Saving Practises and Techniques Were Extensively Adopted in Field Crops Production in the Thirties and Forties. The Trend Toward Mechanization now Extends to Live Stock Production as This Power Feeding Unit Demonstrates.





**Noble Blade Weeders. Note Maintenance of Protective Cover.**

Item	1936	1941	1946	1951	1956
Grain Combines .....	2,909	5,165	10,648	20,852	33,531
Tractors .....	24,922	36,445	48,763	79,282	94,156
Motor Trucks .....	7,656	14,512	18,451	39,723	58,749
Automobiles .....	39,224	44,090	41,541	46,314	47,714
Gasoline Engines .....	30,043	31,091	36,828	46,001	63,462
Threshing Machines .....	12,539	12,753	12,921	14,768	—
Binders .....	74,590	—	65,876	57,930	—
Farms reporting Electric Power ..	—	—	—	20,709	40,937

Deep cultivation is not generally recommended in Western Canada and the one-way disc and Noble blade weeder have practically displaced the plow. The draught of the one-way is about one-half that required to plow and the implement can be adjusted to "anchor" the stubble on the surface of the soil. With a seeder attachment, the

one-way is used as a tillage-seeder combine.

The Noble blade weeder was conceived, designed and manufactured by the late Dr. C. S. Noble who farmed at Nobleford near Lethbridge. Many regard the "blade" as the greatest single contribution to dryland agricul-

#### **Farm and Home Electrified.**





ture in the twentieth century. The implement leaves the soil, stubble and other trash relatively undisturbed. It is widely used in the south where (1) the land is level and (2) wind erosion is a constant threat.

The use of electrical power on farms in Alberta is increasing rapidly. In 1941, about 500 farms received central station power and 5,000 individual generating units were in use. At June 30, 1961, about 55,000 farms used central (high line) power. Basic lines have been extended to all parts of the province and it is expected that 2,500 more farms will be attached to the system in 1961. The average amount of electricity used per farm in 1960 was 4,055 kilowatt hours.

A comprehensive government policy in regard to rural electrification has assisted development. This policy is based on giving assistance, by direct loan and loan guarantees, to farm electrical co-operative associations organized to distribute electricity in rural communities. As a result, 370 associations have financed the construction of 39,361 miles of line at a cost of about \$53.5 million. The total amount borrowed under the Guarantee Act and from the Rural Electrification Revolving Fund was \$39 million of which \$22 million has been repaid.

#### Milking.



## GOVERNMENT SERVICES TO AGRICULTURE

UNDER the British North America Act, the federal and provincial governments in Canada have definite responsibilities with regard to the development of agriculture. With respect to some features of the work either government may take action. In practice, services to agriculture have been developed between the two governments on a complimentary basis.

In general, the Dominion government is regarded as the senior partner in the field of marketing, the grading of farm products, and agricultural research. The Provinces are responsible for agricultural education, extension, production and the organization of farmers' activities, including co-operatives.

#### Canada Department of Agriculture :

The Canada Department of Agriculture is composed of three principal branches, each with an assistant deputy minister in charge. The branches deal with production and marketing; general administration, economics and information; and research. The board of grain commissioners, the prairie farm rehabilitation administration, the prairie farm assistance administration and the maritime marshland rehabilitation administration report to the deputy minister. The Canadian wheat board and the farm credit corporation are directly responsible to the minister of agriculture.

The services offered through the department are made available to the provinces through branch offices. The organization of regional agricultural research stations in Alberta is an example. The station at Lethbridge, with an irrigation substation at Vauxhall and a range substation at Stavelly, is devoted mainly toward the solution of problems related to irrigation; dry-land agriculture; specialization in wheat production; the production of horticultural crops; and cattle ranching. The experimental farm at Lacombe is in a mixed farming district. Consequently, the research program is designed to expand knowledge in rela-





**Cattle on Range Near Fort MacLeod.**

tion to animal breeding and the production of live stock feed. The Lacombe breed of hog, a cross between the Yorkshire and Landrace, originated here. The problems of production on solonchic soils are studied at the Vegreville substation. At Manyberries a program of animal breeding and pasture investigation is carried out

**Wheat Stem Sawfly Control Study, Lethbridge Research Station.**



under range conditions. The Peace River region is served by farms at Beaverlodge and Fort Vermilion respectively. The principal problems in the area relate to cereals, forage crop seed production and the management of grey wooded soils. A federal plant pathology laboratory is situated at Edmonton.

The production and marketing branch administers legislation and policies related to agricultural production, marketing, (including the setting up and enforcement of grade standards) and animal and plant disease control. The markets information section is responsible for compiling and making available data regarding the quantities marketed, grades and prices received for farm commodities. The chief function of the consumer section is to assist in developing the consumer market for the products of Canadian agriculture. The retail inspection unit is responsible for inspecting agricultural products in retail stores for compliance with prescribed grade standards. The head of the branch is also chairman of the agricultural (prices) stabilization board.

The economics division of the administration branch collects, analyses and interprets economic information requir-



ed in the formulation and administration of departmental policies and programs. It conducts economic research with a view to increasing efficiency in agricultural production and marketing and the improvement of farm living conditions.

A continuing program of investigation is carried on under the Prairie Farm Rehabilitation Act with the purpose of promoting efficient land use in marginal areas, and the development and conservation of available water resources. Financial assistance is provided to encourage the construction of dams or reservoirs for watering stock. Financial and technical aid is made available under the Act for the development of irrigation facilities.

The Prairie Farms Assistance Act, 1939, provides for payments to farmers in Western Canada who suffer crop failure. When the yield of wheat is between 5 and 8 bushels per acre in the district, the farmer receives \$2.00 per acre or maximum payment of \$400. When the yield is between 3 and 5 bushels per acre payments are increased to \$3.00 per acre with a maximum of \$600. Should the average yield be less than 3 bushels an acre the farmer



**Junior Club Barley Seed Plot. Grain Storage Elevators in Background.**

receives \$4.00 an acre on one-half the cultivated acreage with a maximum of \$800.

Finally, the Agricultural Rehabilitation and Development Act, 1961, provides for federal-provincial agreements respecting the use of land of low productivity, providing income and employment opportunities in rural areas, and the development and conservation of water and soil resources. Details of the program to be undertaken have not been announced at date of writing.

**Junior Calf Club Show.**







Range Cattle are "Worked" — Branded, Vaccinated, Dehorned, etc. in Enclosures Known as Corrals.

### The Alberta Department of Agriculture:

**T**HE Alberta Department of Agriculture serves the rural people through a number of branches, each concerned with a particular phase of the industry. The respective branches deal with field crops, live stock, dairying, veterinary services, poultry, fur farming, water resources, farm economics, agricultural extension, agricultural education, radio and information, and development and colonization of irrigated lands.

Each branch is organized on an enterprise basis. The field crops branch, for example, includes the following divisions: crop improvement; soil conservation and weed control; pest control; horticulture; apiculture; and seed cleaning plants.

Farmers Attend Demonstration on Stacking Hay.



Under the agricultural extension service, fifty-six district agriculturists work among the rural people, assisting them with their problems and carrying to them the many government policies designed to improve the general standard of farming in the Province. Under the dominion-provincial farm labour agreement, district agriculturists assist in the placement and supervision of farm labour, with particular attention given to harvest labour requirements.

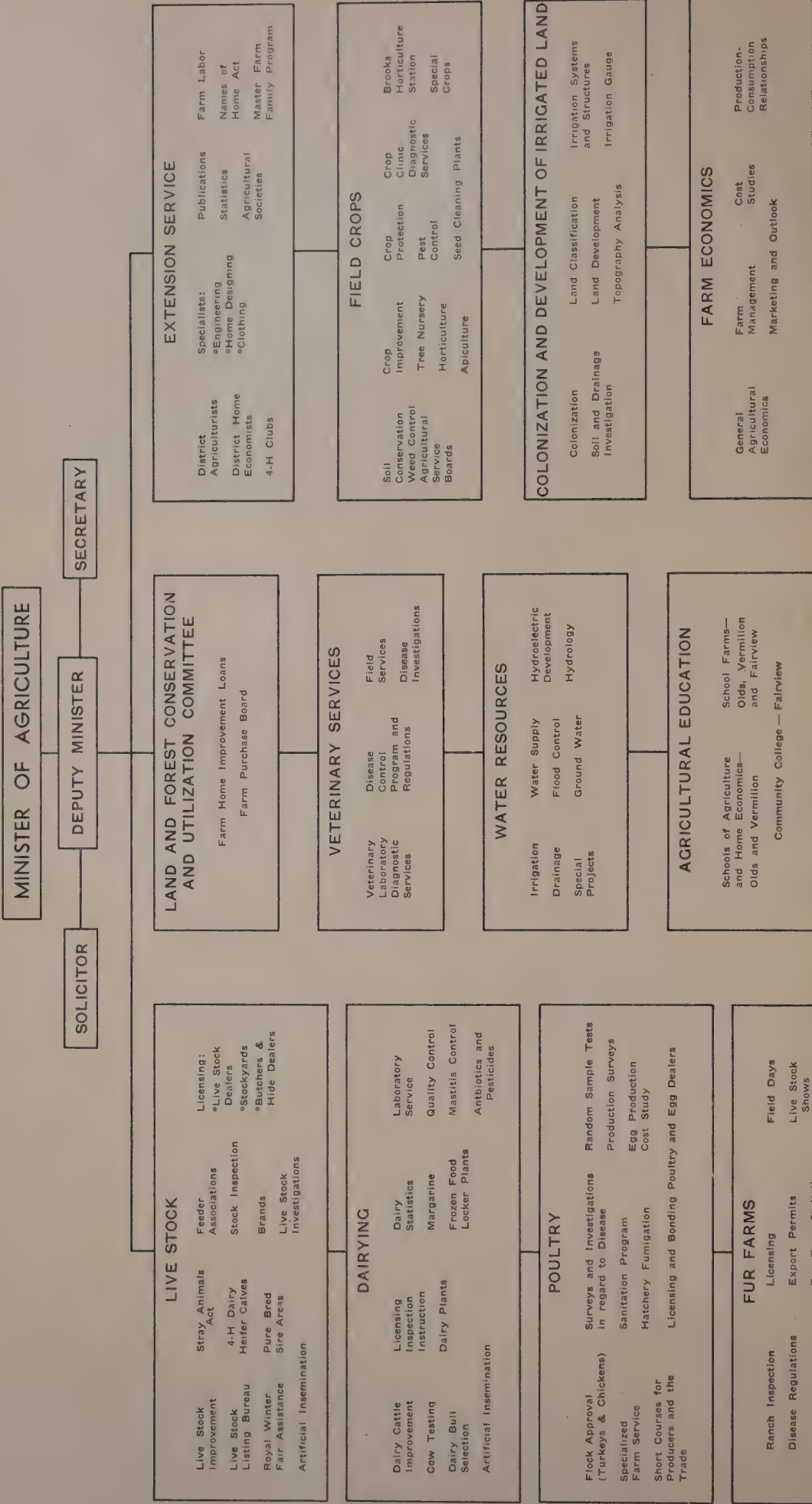
The Agricultural Service Board Act provides for the setting up of agricultural service boards on weed control, soil erosion and other problems. The boards consist of two members of the municipal council, two ratepayers and the local district agriculturist who acts

Farmers Discuss Soils and Fertilizers on Illustration Station.





ALBERTA DEPARTMENT OF AGRICULTURE





Correction

The caption on page 37, -

"Farm Management Study Group"

should read

"Fur Breeder Admires a Show Animal"

duced on Fur Farms in Alberta.

ing twenty-one district home economists through whose offices direct contact with the people using the service is maintained. The services offered through this division are much appreciated, and will be extended as the supply of trained staff permits.

Seasonal short courses in agriculture and home arts are provided at country points convenient to all who wish to attend. Bulletins and other publications prepared by members of the Department are provided free upon request.

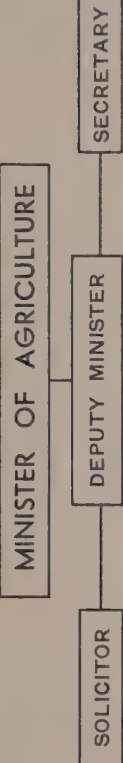
The purpose of the farm economics branch is to help maximize farm in-



Farm Management  
Study Group.



ALBERTA DEPARTMENT OF AGRICULTURE



**LIVE STOCK**

Live Stock Improvement  
Live Stock Listing Bureau  
Royal Winter Fair Assistance  
Artificial Insemination

Stray Animals Act  
4-H Dairy Herifer Calves  
Pure Bred Sire Area

Feeder Associations  
Stock Inspection  
Brands  
Live Stock Investigations

Licensing:  
•Live Stock Dealers  
•Stockyards & Butchers & Hide Dealers

**DAIRYING**

Dairy Cattle Improvement  
Cow Testing  
Dairy Bull Selection  
Artificial Insemination

Licensing Inspection Instruction  
Dairy Plants

Dairy Statistics  
Margarine  
Frozen Food

Laboratory Service  
Quality Control  
Mastitis Control

**POULTRY**

Flock Approval (Turkeys & Chickens)  
Specialized Farm Service  
Short Courses for Producers and the Trade

Surveys and Inspections in regard to Poultry  
Sanitation Program  
Hatchery Farm  
Licensing and Inspection

**FUR FARMING**

Ranch Inspection  
Disease Regulations  
Fur Farming License  
Export  
Fur Farming

**RADIO AND INFORMATION**

Radio  
"Call of the Land"  
"Fur Farming"  
No

**LAND AND FOREST CONSERVATION AND UTILIZATION COMMITTEE**

Farm Home Improvement Loans  
Farm Purchase Board

**VETERINARY SERVICES**

Veterinary Laboratory Diagnostic Services  
Disease Control Program and Regulations  
Field Services  
Disease Investigations

**EXTENSION SERVICE**

District Agriculturists  
District Home Economists  
4-H Clubs

Specialists:  
•Engineering  
•Home Designing  
•Clothing

Publications  
Statistics  
Agricultural Societies

Farm Labor  
Names of Home Act  
Master Farm Family Program

**FIELD CROPS**

Soil Conservation  
Weed Control  
Agricultural Service Boards

Crop Improvement  
Tree Nursery  
Horticulture  
Aciculture

Crop Protection  
Pest Control  
Seed Cleaning Plants

Brooks  
Horticulture Station  
Diagnostic Services  
Special Crops

**DEVELOPMENT OF IRRIGATED LAND**

Land Classification  
Land Development  
Topography Analysis

Irrigation Systems and Structures  
Irrigation Gauge

**FARM ECONOMICS**

Farm Management  
Marketing and Outlook

Cost Studies  
Production-Consumption Relationships

who are responsible for its application with the Extension workers in the application of





**Mink is the Principal Fur Produced on Fur Farms in Alberta.**

in an advisory capacity. The service boards have the authority to assume control over farm lands which through neglect or inefficiency have become weed-infested or otherwise debilitated. However, the interest of the owner in the land is carefully protected under the Act, which provides that the farm must be returned to him upon rehabilitation of the land.

The women's division of the extension service branch provides a comprehensive service in home economy designed particularly to meet the needs of homemakers in rural areas. The division is staffed by a group of specialists includ-

ing twenty-one district home economists through whose offices direct contact with the people using the service is maintained. The services offered through this division are much appreciated, and will be extended as the supply of trained staff permits.

Seasonal short courses in agriculture and home arts are provided at country points convenient to all who wish to attend. Bulletins and other publications prepared by members of the Department are provided free upon request.

The purpose of the farm economics branch is to help maximize farm in-



**Farm Management  
Study Group.**





**Turkey Raising is Established as a Permanent Enterprise on Many Alberta Farms.**

come and consumption. Many disciplines are involved in the effort. However, farm management and cost of production studies have been the first to be developed. Much of the work of the branch in the farm management field is done in co-operation with the field staff of the extension service.

Alberta junior farm and home clubs (now referred to as 4-H clubs) provide programs of activities designed to arouse in rural young people an appreciation of the farm and farm life and to train them in the essentials of good citizenship, farming and home-making. Farm club projects include beef cattle breeding and raising dairy calves, swine, poultry, grains, forage

crops and potatoes. Home clubs engage in food, clothing, gardening and home decorating projects. In 1960, there were 480 junior clubs in operation in the Province with a total membership of 7,416 boys and girls.

In addition to attendance at regular club meetings and participation in project work, junior club members hold achievement days, attend rallies and camps, and take part in various community activities. Outstanding work is recognized by awarding scholarships with the opportunity to attend short courses arranged at the schools of agriculture and to participate in provincial judging competitions. Provincial project winners attend national

**Modern Facilities are Available in Many Alberta Farm Homes.**







**Dormitory, School of Agriculture and Home Economics.**

club week held in connection with the Toronto Royal Agricultural Winter Fair (14), the State 4-H Congress, Bozeman, Montana, U.S.A. (4) or the National 4-H Congress held in Washington, D.C., U.S.A. (1).

The junior club program has stimulated an interest in exhibiting at major as well as local competitions. Alberta grain exhibits entered in junior classes at the "Royal" in Toronto not infrequently capture grand championship honours, and repeat at the Chicago International. In 1955, Alberta exhibitors won top awards for wheat, oats

and barley in the 4-H sections at the "Royal". Thirty-two of the top thirty-five awards in wheat came to this province. At the Chicago International a 4-H club member won the wheat championship in open competition. Many winners in senior classes at Alberta fairs are 4-H club members.

Free courses are offered at Alberta Schools of Agriculture and Home Economics located at Olds, Vermilion and Fairview. The instruction given at the schools is of a practical nature. The laboratories and work shops are well equipped and up-to-date. Material for

**Alberta Random Sample Test.**



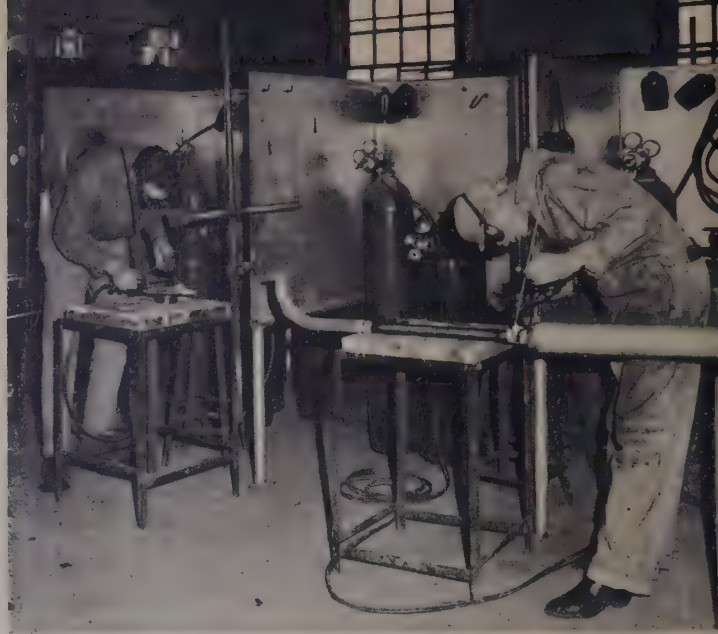
**Test Pen (Left) Egg Quality Analysis. (Right).**







**Schools of Agriculture and Home Economics.**  
**Instruction in Cooking.**



**Class in Farm Mechanics.**

judging and demonstration purposes comes from the farms that are operated in conjunction with each school. The regular course covers a period of two terms, each term extending from October to early April.

In the summer, short courses are offered at the schools of agriculture for the benefit of junior club members, and for groups of farm men and women interested in special farm or home problems, or in rural community organization.

#### **University Faculty of Agriculture:**

The University of Alberta serves the rural interests of the Province through a Faculty of Agriculture. The Faculty consists of eight departments, namely, animal science, dairying, plant

science, genetics, soils, agricultural engineering, entomology, agricultural economics and farm management. A four-year course leading to the degree of B.Sc. in agriculture is offered and opportunity for post-graduate study is provided in most of the departments of the Faculty.

The training of students is looked upon as the first duty of the staff. However, considerable time is devoted to research work and extension activities. The Faculty is the principal provincial research agency doing fundamental and applied research related to agriculture. Close contact with farm people is maintained through radio, the press and the publication of bulle

**Sows on Pasture at University Farm.**







**A 4-H Dairy Calf Club Show.**

tins. Staff members address gatherings at meetings and field days throughout the Province, and the public are invited to attend "special" days at the University when the results of experimental projects are discussed.

For example, Feeders' Day, arranged by the Department of Animal Science, is attended annually by more than one thousand people from all parts of Alberta; and the Annual Breton Field Day sponsored by the Department of Soil Science and the Alberta Department of Agriculture jointly, usually attracts over 350 people, many of whom come from more than 75 miles away.

The departments of animal science, plant science, and soils operate farms as part of the experimental and research programs carried out. Thus a useful contact is established between laboratory research, experiments conducted in the field and the practice of farming. In addition, co-operative work is carried on with farmers and various organizations in many parts of the Province. Close co-operation is maintained with the National Research Council of Canada, Federal and Provincial Departments of Agriculture, and with a number of commercial and industrial organizations.



**Lambs on Feed.**



**A Farm Flock of Layers.**





**Government Grants Help Build Main Roads in Rural Areas.**

## LOCAL GOVERNMENT

**Municipal Administration :** Farm communities in Alberta enjoy self-government in all matters of local interest. The only exception is in outlying districts which are not sufficiently advanced to support self government, and where local affairs are administered by officers of the Department of Municipal Affairs.

Rural municipal districts and counties are the principal units of local self government. There are thirty-one municipal districts and seventeen counties now organized in the Province. Municipal councils are made up from five to eleven councillors, depending upon the size of the municipality. Continuity on council is provided through the practice of electing one-third of its members each year.

The main functions of municipal government are to levy and collect taxes, and to supervise the expenditures of municipal funds in providing community services. These include the construction and maintenance of roads, bridges, etc.; the protection of persons and property; the conservation of health; public welfare; and other services of a purely local nature.

The municipality is also required to levy and collect taxes as requisitioned

for by school divisions, municipal hospital boards and rural health units.

Local authority to levy taxes is pretty well restricted to a direct tax on land. More than 90 per cent of revenues collected by rural municipalities comes from this source. However, benefits from other sources of revenue are extended to municipal districts and counties through a generous policy on the part of the Provincial Government in providing grants both for specific purposes and without condition. Thus assistance is given for the construction and maintenance of market roads, the operation of agricultural service boards, education, and to provide health and hospital facilities. Unconditional grants are made for the pur-

**Divisional School Board in Session.**







A Centralized School and Kind of Transportation Provided.

pose of reducing the municipal mill rate. Old age pensions, mothers' allowances, and unemployment and agricultural relief are the subject of agreement between local and the senior governments, Provincial and Dominion.

**Rural Public Schools:** The operation of public schools is an important function of local self-government. For the purpose of administration there are forty-two school divisions and seventeen counties in the Province. Each jurisdiction contains from 60 to 80 rural districts and frequently one or more town or village districts. Centralization of rural schools in the province of Alberta is practically completed. The typical rural educational center today is a five to ten-room school, with a bus system providing transportation for the majority of those attending.

The affairs of a school division are administered by a board of trustees, three or five in number, each representing a subdivision and elected for a period of three years. The superintendent of schools for the division represents the Alberta Department of Education and serves the board in a consultative capacity. An office with a full time secretary-treasurer in

charge is maintained by each division. In the counties that have been organized, an educational committee of council takes the place of the board of trustees in the administration of school matters. Also the secretary of the county council is responsible for directing the details of school operation.

The board has full control over the construction and maintenance of schools, teachers, residences, dormitories and other buildings, the employment of teachers, salaries, supplies, library services and determining the amount of money to be requisitioned for financing. The educational committee in the counties perform similar duties and have the same responsibility for preparing the budget for school operation. The elected members, being councillors, sit on the council when the budget comes up for consideration.

The school board may also arrange for such medical, nursing and dental services as are considered necessary to safeguard the health of the children. Provision is also made for the health department to establish complete units on a municipal basis. Such units are now replacing those that were formerly set up through the co-operation of divisional boards and the Alberta Department of Health.





**A Provincial Mental Hospital Farm.**

**Rural Health:** The Alberta Health Unit Act provides for the organization and administration of health services. A rural health unit is established by agreement between one or more municipalities and includes towns and villages. Nearly 60 per cent of total costs are met from government grants paid on a per capita basis, the size of the health unit and the dispersal of population. The program of a rural health unit includes: health education; medical examination of school children; immunization of pre-school and school children against smallpox, diphtheria, whooping cough, tetanus and poliomyelitis; child hygiene clinics; the investigation of sources of communicable diseases, their prevention and control; the supervision of water, food and milk supplies; sewage disposal and general sanitation. There are now 24 rural health units, covering a population of 712 000, in operation.

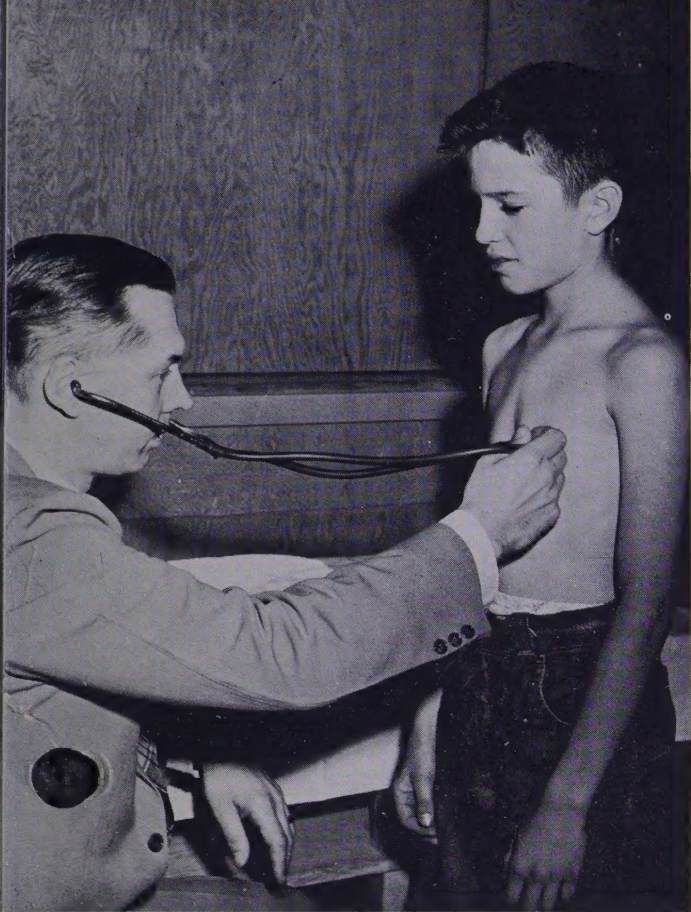
Municipal nursing services are provided in communities located a considerable distance from established hospitals and medical services. They include first aid and emergent treatment; prenatal and postnatal maternity care; child health conferences and service; communicable disease and immunization programs; mental health

services; nutrition and health education; etc. With the settlement of the province the need for municipal nursing services is decreasing and the number of offices maintained has been reduced to 25.

All bona-fide residents of Alberta are entitled to benefits provided under the Alberta Hospitalization Plan. At nominal rates — varying from \$1 to \$2 per day — benefits include bed accommodation at standard ward level; meals; necessary nursing service; laboratory, radiological and other diagnostic procedures; drugs, biologicals and preparations when administered in a hospital; use of operating room, case room and anaesthetic facilities, including necessary equipment and supplies; and routine surgical supplies and radiotherapy and physiotherapy facilities, where available. Chronic hospitalization is included upon admission to hospital by a physician.

Other services provided by the Alberta Department of Health include programs dealing with preventative dental care, social hygiene, public health entomology, blood transfusion, cerebral palsy, tuberculosis, cancer (diagnostic and treatment clinics), rheumatoid arthritis, mental health, etc.





District Doctor.



District Health Nurse.

A Municipal Hospital.



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